and 8 rendered the claims unclear, the use of "in particular" in claim 5 rendered the claim indefinite, and the recitation of "at the optimum end temperature" of claim 8 rendered the claim indefinite.

The added claims 11-26 correspond to claims 1-10 wherein they have been rewritten out of narrative form and into a form congruent with the Examiner's instructions. As rewritten, use of the term "the educts" has been replaced with "an educt" to provide antecedent basis. Subscripts "x","y", and "z" have been defined in claim 11, corresponding to canceled claim 1, by incorporating the limitations of canceled claim 3 into canceled claim 1. Subscript "a" depends upon the oxidation degree of the first and second doping elements as discussed on page 7, lines 11 to 24 of WO 91/09430 and on page 4, lines 39 and 40 of EP A1 0722194 as referenced in the present application. Use of the terms "preferably" and "in particular' in claims 3-8 has been omitted in corresponding claims 13-18,and 21-24. In some instances, rewriting the claims to remove use of the word "preferably" resulted in more than one dependant claim. As a result, canceled claims 1-10 correspond to added claims 11-26 numbering 16 in total. However, no new matter was added. Lastly, references to an "optimum end temperatures" have been eliminated. Accordingly, Applicant believes all of the claims 11-26 corresponding to canceled claims 1-10 to be in condition for allowance. Applicant respectfully traverses the rejections.

REJECTIONS UNDER 35 U.S.C. §103(a)

The Examiner rejected claims 1-10 as being unpatentable over Inaba et al. or Overs et al. or Van Herle. The Examiner noted, with regards to each of the three references, that the claim language of the formula recited in claim 1 is inclusive of an impurity level of zero amount of metal "D".

Added claim 11, corresponding to claim 1, incorporates the limitations of claim 3 and now recites the requirement of a mol fraction of "$0 < z \leq 0.05$ for second doping element D." Applicant respectively traverses the rejection. As claims 12-26, corresponding to claims 2-10, are dependant upon claim 11, they are likewise considered to be in condition for allowance.

The Examiner rejected claims 1-10 as being unpatentable over WO 91/09430 in view of Overs et al. The Examiner stated that it would have been obvious to one skilled in the art to use the coprecipitated oxalate procedure disclosed in Overs for preparing the doped ceria materials of WO 91/09430.

WO 91/09430 discloses a solid electrolyte composition based on ceroxide. Overs et al. does not disclose compositions having a second doping element D of at least one metal.

In contrast, added claims 11-26 are drawn to a process for the production of sintered oxide ceramic having a second doping element D of at least one metal. There is nothing in either WO 91/09430 or Overs et al., taken alone or in combination, that teaches or suggests the method of producing a sintered oxide

ceramic having a second doping element D of at least one metal as recited in the present claims 11-26. Accordingly, the rejections are traversed. Claims 11-26 are therefore believed to be in condition for allowance.

The Examiner additionally rejected claims 1-10 as being unpatentable over WO 91/09430 in view of Van Herle et al. The Examiner stated that it would have been obvious to one skilled in the art to use the wet ball milling process disclosed in Van Herle for preparing the doped ceria materials of WO 91/09430.

Van Herle et al. discloses a sintering temperature range between 1200 and 1600°C (page 961, col. at right, line 18). Furthermore, Van Herle et al. makes clear in the abstract that full density is not reached before 1300°C. As a result, Van Herle et al. teaches away from sintering at a temperature below 1300°C.

In contrast, the process of the present invention recites in claim 11 the step of sintering at a temperature between 750-1200°C. Therefore, neither Van Herle et al. nor WO 91/09430, alone or in combination, teach or suggest the process of the present invention as recited in claims 11-26. Applicant respectfully traverses the rejections. Claims 11-26 are therefore believed to be in condition for allowance.

An earnest and thorough attempt has been made by the undersigned to resolve the outstanding issues in this case and place same in condition for allowance. If the Examiner has any questions or feels that a telephone or personal interview would

be helpful in resolving any outstanding issues which remain in this application after consideration of this amendment, the Examiner is courteously invited to telephone the undersigned and the same would be gratefully appreciated.

It is submitted that the claims as amended herein patentably define over the art relied on by the Examiner and early allowance of same is courteously solicited.

If any fees are required in connection with this case, it is respectfully requested that they be charged to Deposit Account No. 02-0184.

Respectfully submitted,

CHRISTOPH KLEINLOGEL ET AL.

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Date: May 10, 2002

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231

on May 10, 2002
(Date of Deposit)

Antoinette Sullo
(Name and Reg. No. of Attorney)

Antoinette Sullo
Signature

5-10-02
Date of Signature

The Third Full Paragraph on Page 3:

Evidently, for performance of the process according to the invention the individual components can also be used. Suitable starting materials, also known as educts, are in particular oxides of the components. These are ground dry and wet, then [calcinated] sintered. When inorganic salts are used as starting elements, wet chemical methods can be applied followed by coprecipitation, filtering and [calcinated] sintering.

The Paragraph Bridging Pages 3-4:

The mol fraction x for the basic component Ce [preferably] lies in the range of around 0.5 to around 1. The first doping element M is [preferably] added in a mol fraction y of $0 \leq y \leq 0.5$. In the limit case the first doping element M can even be omitted. The mol fraction z for the second doping element D [preferably] lies in the range of $0 < z \leq 0.05$. In particular the mol fraction z for the second doping element D, which is not optional like the first doping element M, lies in the range from $0.001 \leq z \leq 0.02$. Compared with the first doping element M, the doping range for the second doping element D is very narrow and close to 0.